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Daniel Castro

Family Medicine Rotation, September, 2021

Dr. Michelle Cangiano, Dr. Rachel Humphrey

Evidence Based Dietary Recommendations – Hinesburg Family Practice, VT

Community Public Health Concern: Overweight and Obese Individuals

- Although Vermont currently ranks 6th in the nation in terms of the lowest rates of obesity, according to the Vermont department of Health, an estimated 60% of individuals are still classified as overweight or obese
- A large contributing factor is the lack of understanding around diet and its implications for health. Research done by the Cleveland Clinic indicates that 18% of Americans “believe that diet has nothing to do with heart health”
- This points to an area of need in regards to improving health literacy and improving dietary education

References: Vermont Department of Health, 2016. *Vermont: 6th Lowest Rates of Adult Obesity in the Nation*. BURLINGTON, pp.https://www.healthvermont.gov/sites/default/files/documents/2016/11/Vermont_%206th%20Lowest%20Rates%20of%20Adult%20Obesity%20in%20the%20Nation.pdf.

Cleveland Clinic. "Americans concerned about weight, but don't understand link to heart conditions, health." ScienceDaily. ScienceDaily, 31 January 2019. <www.sciencedaily.com/releases/2019/01/190131084243.htm>.

Public Health Costs and Considerations

- Per the CDC, obesity-related medical care costs in the US were estimated at \$147 billion annually
- Additionally, the CDC found that in Vermont, obese individuals incurred an extra \$1,429 dollars more in medical care expenses annually compared to their normal weight counterparts

References: Centers for Disease Control and Prevention Division of Media Relations, "Study Estimates Medical Cost of Obesity May Be As High as \$147 Billion Annually."

Community Perspective

- The aim of community perspective was to answer two questions; 1. What is the general nutrition literacy like in the area? 2. Would discharge instructions regarding dietary options for patients with a BMI over 30 be useful for patients?
- Interview with Jennifer Stratton at the Gifford Medical Center: **Me**: “what do you think is the general nutrition literacy like in this area?”, **Stratton**: Rather poor. The poverty that people have can cause them to lack awareness around food and diet”. **Me**: “Do you think discharge instructions with information on different diets would be helpful for patients?”, **Stratton**: “Yes and no. I think the Mediterranean diet is excellent and the we need more plant based options, but part of the problem is that people don’t know what that entails, can’t get to the store to buy it, and tend to buy more packaged meals. While I think discharge instructions could be helpful, the question I would have is are the patients reading the discharges instructions thoroughly? My advice would be to keep the instructions as simple as possible.
- Interview with Stephanie Gall, Registered Dietician supervisor at UVMHC: : **Me**: “what do you think is the general nutrition literacy like in this area?”, **Gall**: I think nutrition literacy in the area is below average. What makes the Burlington area different is that there is a higher incidence of food insecurity. Some people may have a reasonable education level, but even with great nutritional knowledge, the food insecurity in the area is something to consider. Patients may not have enough money to afford food with better nutritional value and nutritional literacy is hit or miss. Almost 1 out of every 3 Vermonters is food insecure which is a big contributor to the problem”. **Me**: “Do you think discharge instructions with information on different diets would be helpful for patients?”, **Gall**: “Yes I really think this kind of information would be helpful. You’re talking about removing processed foods and making your own food. People need less input from grocery store convenience and this could be a great first step in providing them with that information. Especially with the pandemic, people are choosing processed foods more and more”

Intervention and Methodology

- Developing discharge instructions directed towards patients with a BMI greater than 30 (i.e. definition of individuals who are obese) that are simple and concise with regards to diet geared towards weight loss
- The discharge instructions will include pictorials to assist patients with limited literacy
- An additional goal of the discharge instructions will be to have it written in a manner where patients do not feel attacked, but rather empowered to lose weight and work towards optimal health
- The final piece of the DC instructions will be recommendations for community resources that patients can look towards for obtaining healthy food options at a reasonable price

Results

- Results of this project will ultimately be both qualitative and quantitative
- From the qualitative perspective, follow up with patients could include conversation regarding their feelings around nutrition/diet literacy and if they've noticed an improvement since receiving the discharge instructions
- From the quantitative perspective, results/data could be gathered on if patients and patient groups show a downtrend in their BMI after receiving the discharge instructions
- The limitation of this project's results are distributing the materials to a wide enough population and gather the data in a timely enough manner to have it be considered for this section of the project.

Evaluation

- The goal of evaluation will be to determine if patients respond to these discharge instructions
- This will be done by determining the point in time that the patient is given the discharge instructions and monitoring changes in BMI over the course of the subsequent 12 months
- Given the difficulty with daily/weekly intervention, the results of BMI reduction will likely be minimal. Ultimately, the results of implementing discharge instructions for individuals with a BMI > 30 may not show a statistically significant result

Recommendations for Future Intervention

- The goal of future interventions will be to build upon health literacy of patients
- This will include further dietary instructions and increased effort to include registered dietitians and nutritionists into patient care
- Once patients have learned what diet entails, where to acquire healthy food, how to prepare it, and in what proportions it should be eaten, their BMI will hopefully show a reduction and intervention will only require continued support and encouragement for improvement

References

- Bakaloudi DR, Chrysoula L, Kotzakioulafi E, Theodoridis X, Chourdakis M. Impact of the Level of Adherence to Mediterranean Diet on the Parameters of Metabolic Syndrome: A Systematic Review and Meta-Analysis of Observational Studies. *Nutrients*. 2021;13(5):1514. Published 2021 Apr 30. doi:10.3390/nu13051514
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- Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.
- Consented Yes
- Name: Jennifer Stratton
- Name: Stephanie Gall
- Did NOT Consent_____
- Name: _____
- Name: _____